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SYSTEMATIC NOTES CONCERNED WITH THE AVIFAUNA OF PANAMÁ

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The observations and descriptions included in the following pages have come to attention during detailed studies of the birds of the Isthmus of Panamá and their comparison with forms from other tropical areas. They are based in the main on the collections of the United States National Museum, with addition of specimens seen in the course of work at other institutions.

I. GEOGRAPHIC VARIATION IN THE BLACK VULTURE, CORAGYPS ATRATUS (BECHSTEIN)

Opinion on recognition of races in the black vulture has varied from treatment of the entire population as undivided throughout the vast range, from southern United States south through Central America and South America to southern Chile and Argentina, and recognition of two races, one northern and one tropical, based on difference in size. The latter view has been abandoned currently in the main since a study by Friedmann (1933, pp. 187-188) in which he compared average size of North American birds with a small scries from southern South America to find that the wing measurements appeared too similar to warrant separation. In the course of studies during recent years I have had opportunity to examine approximately 130 black vultures in various collections in the United States and to assemble a series of measurements that verify the findings of Brodkorb (1944, pp. 115-121) that three size groups are present, a smaller population in the tropical area and two larger ones in the temperate regions to the north and south on either side. Brodkorb was uncertain as to the nomenclature to be used since he could not distinguish between the two larger groups, which he therefore treated under one name. The extensive material that I have seen has justified the recognition of 3 races, as follows:

CORAGYPS ATRATUS ATRATUS (Bechstein)

Vultur atratus Bechstein, in John Latham's Allg. Uebers. Vögel, Bd. I, Anh., 1793, p. 655. (Florida.)

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Vultur urubu Vieillot, Hist. Nat. Ois. Amér. Sept., vol. I, Sept. 1807, p. 23, pl. 2. ("Carolines . . . Florides et . . . pour patrie la Zone torride"=Carolina and Florida; cf. A. O. U. Check-list North Amer. Birds, ed. 3, 1910, p. 153.)

Characters.—Size large; light markings on undersurface of primaries less extensive; wing ♂ (32 specimens) 414-445 (426); ♀ (28 specimens) 414-438 (426).

Resident from the mountains of northeastern Sonora (Sásabe, Moctezuma), western Texas, eastern Oklahoma, southeastern Kansas, Missouri, southern Illinois, southern Indiana, central Ohio (northern Licking County), eastern West Virginia, and Maryland south to the lower Rio Grande Valley in Texas (Brownsville), Louisiana, the Gulf coast, and Florida. The breeding range in recent years has been extended slowly along the northern boundary, with stragglers recorded casually to Nebraska, the Dakotas, and southern Ontario, eastward to southwestern Quebec, Maine, and Nova Scotia.

A male from Guadalajara, Jalisco, with the wing 415 mm., seems to indicate that this large northern form extends south from the international boundary through the plateau region of México and the adjacent mountain areas. In this same connection Col. L. R. Wolfe has pointed out to me some interesting data concerned with egg size in these birds. Three sets comprising 6 eggs in his collection from La Laja, in northern Veracruz, on the coastal plain about 40 miles south of Tampico, Tamaulipas, average 73.5×48.4 mm., which agrees closely with an average of 74.3×50.1 mm. for 21 eggs in 11 sets in the U. S. National Museum from Texas and Florida. As eggs of the subspecies of true tropical range are smaller, as will be shown under that race, there is indication that the northern form may range into northeastern México, though this requires check whenever skins from that area may be available.

CORAGYPS ATRATUS BRASILIENSIS (Bonaparte)

- Cathartes brasiliensis Bonaparte, Consp. Gen. Avium, vol. 1, pt. 1, 1850, p. 9. ("ex Amer. merid. Antill." "Brasil merid." designated by von Berlepsch, Nov. Zool., vol. 15, 1908, p. 289; hereby further restricted to Rio de Janeiro, Brazil.)
- ? Cathartes (vultur) urbis incola "Ricord," Lesson, Compléments de Buffon, ed. 2, 1838, p. 93. (Indes occidentales . . . Santo Domingo, . . . bords de l'Orenoque . . . port d'Espagne . . . Saint-Vincent, à Saint-Lucie, à la Dominique et à la Santiago-de-Cuba.)
- ? Cathartes urbicola Des Murs, Rev. Mag. Zool., 1853, No. 4, p. 153. (Based on Lesson, 1838, above.)
- ? Cathartes Ricordi Des Murs, Rev. Mag. Zool., 1853, No. 4, p. 153. (Alternate name for C. urbicola.)

Vultur urbis-incola "Riccord," Cassin, U. S. Expl. Exped., Mamm. and Ornith., 1858, p. 81. (Based on Des Murs, 1853, above.)

Characters.—Size small; light markings on underside of primaries more extensive and clearer white; wing δ (17 specimens) 386-410 (401); φ (23 specimens) 388-413 (400).

Resident in the tropical zone; in México, along the Pacific coast from southern Sonora (Camoa on the lower Río Mayo), and on the eastern side from southern San Luis Potosí (Bledos, Xilitla) southward throughout Central America; and in South America on the west to the coastal region of Perú (Lima), and on the east to the lowlands of Bolivia (Buenavista, Santa Cruz), and southern Brazil.

The southern limit from the material seen is uncertain but appears to include most of Brazil. The small size is constant throughout this vast range. It appears desirable to pinpoint restriction of type locality from that proposed by von Berlepsch to Rio de Janeiro in the southern part of that great country. Two specimens in the U. S. National Museum from the Federal District are typical in small size. It is possible that the next race may be found along the far southern boundary since this is the form of Paraguay.

With regard to egg size in this race, Colonel Wolfe writes that 7 eggs (in 4 sets) in his collection from Trinidad average 70.1×49.4 mm. A set of 2 in U. S. National Museum, collected at Lagoa Santo, Minas Gerais, by E. G. Holt, measures 70.4×48.4 and 68.6×48.8 mm. These figures are definitely less than those listed above for the typical race.

Cathartes urbicola of Des Murs (1853, p. 153), listed in the synonymy above, is based on an account of "le Catharte citadin" given by Ricord to Lesson and published by the latter in the second edition of his Compléments de Buffon (Lesson, 1838, p. 93). The bird described by Ricord is a composite based in part on the black vulture, and in part on the turkey vulture, but with the size of a condor as it is said to be 48 inches tall. It is described as inhabiting the Spanish settlements in the West Indies, Trinidad, and on the Orinoco, where it was protected by the authorities as a scavenger. Lesson in a footnote gave it the name "Cathartes (vultur) urbis incola, Ricord," which was cited by Des Murs (p. 147) as "Cathartes urbis incola (Ricord) Lesson." Cassin (1858, p. 81) lists this under Cathartes urbicola Des Murs as "Vultur urbis-incola, Riccord." Des Murs also in the original citation wrote ricordi as an alternate name, his statement being as follows: "Jusque-la nous croyons devoir proposer pour le nom de ce Catharte, en tant qu'on le maintiendrait

dans le série comme espèce douteuse ou à étudier, soit le nom de *Cathartes urbicola*, soit encore mieux celui de *Cathartes Ricordi.*"

While the black vulture undoubtedly is one of the birds to which these citations refer, the details of the accounts include the turkey vulture and possibly the condor in such a mixture that the names are of uncertain application. The earliest valid name is *brasiliensis* Bonaparte of 1850.

CORAGYPS ATRATUS FOETENS (Lichtenstein)

Cathartes foetens Lichtenstein, Verz. Ausgest. Säug. Vögel Zool. Mus. Berlin, 1818, p. 30. (Based on "Iribu Azara"; Paraguay; restricted to Asunción, Paraguay, by Brodkorb, in 1944.)

Characters.—Size similar to that of *C. a. atratus*, but light markings on under surface of primaries more restricted, the under wing definitely darker than in the two more northern races. Wing, male (10 specimens) 412-437 (421), female (5 specimens) 416-422 (419).

Resident in the Andes from northern Ecuador (Quito) to northern Bolivia (Cochabamba); in Chile, south to Aysen; Paraguay, including the Chaco, from the north-central section (Horqueta, 200 kilometers west of Puerto Casado), and Argentina south to the Río Negro; probably through Uruguay (no specimens examined).

The large size of the southern group has been the main cause of confusion in recognition of races in this species, since when birds of southern South America have been examined they have not appeared separable from northern representatives of equivalent measurements. This misunderstanding has completely overshadowed the vast tropical population of uniformly small dimension. The true status was clearly outlined by Brodkorb (1944, pp. 115-121), but his analysis has been disregarded since he applied the name of the nominate race to the large birds of both north temperate and south temperate areas in spite of their wide separation by another form.

With regard to eggs, Colonel Wolfe writes that a set of 2 from Argentina in his collection measures 74.5×45.0 and 72.0×47.0 , and that the average of 54 eggs taken in Chile, according to figures furnished by A. W. Johnson, is 72.58×49.5 mm. These figures are close to the sizes found in the typical race of the north.

II. THE CRESTED BOBWHITE, COLINUS CRISTATUS (LINNAEUS), OF WESTERN CHIRIQUÍ

The quail of Panamá, described as *Colinus cristatus panamensis* by Dickey and van Rossem, is locally common from western Veraguas through Coclé to the western area of the Province of Panamá. To the south it ranges down the eastern side of the Azuero Peninsula through Herrera and Los Santos, including the valley of the Río Tonosí. There have been few records for the Province of Chiriquí until recently, when I found crested bobwhites in small numbers in the coastal lowlands between Alanje and Puerto Armuelles, as well as near Boquete. The birds of this region are an isolated population separated by a considerable area, where no quail are known, from the main group of the species in the Republic. The bird of Chiriquí differs so decidedly in coloration that it requires recognition as another form.

COLINUS CRISTATUS MARIAE subsp. nov.

Characters.—Similar to *Colinus cristatus panamensis* Dickey and van Rossem¹ but decidedly darker, the markings of the upper surface blacker, and the black areas of the lower surface more extensive in both sexes; darker than any other population of the species.

Description.-Type, U.S.N.M. No. 471174, male adult, from 7 kilometers south of Alanje, Province of Chiriquí, Panamá, collected March 8, 1960, by A, Wetmore (original number 23600). Forehead, lores, a narrow feathered area surrounding the eve, and side of head down to the ramal area, dull white; shorter anterior feathers of the narrow, elongated crest pale drab-gray, the longer ones fuscous, tipped, and spotted irregularly along the edges, with drab; a broad superciliary extending from above the middle of the eye back to the side of the nape behind the auricular region mikado brown, lined irregularly with black; crown black, edged narrowly with white and adjacent to the superciliary with bright brown; auricular area dull olive-buff; black of crown extended down over nape, hindneck, and sides of neck, to extreme upper back, and spotted rather irregularly with white; feathers of back, scapulars, tertials, wing coverts, rump, upper tail coverts, and tail black, freckled with fine markings of fawn color, grayish white, and white, the inner secondaries edged, and the wings spotted more prominently, with dull white; primaries dull mouse gray, with the edge of the outer web and the tip of both webs varied from dull white to tilleul-buff; chin drab-gray; throat, foreneck, and sides of upper neck, below auriculars, russet; base of neck black, spotted with white and irregularly with russet, changing across upper breast to sayal brown, with each feather banded basally with white and medially with black below the brown tip to produce an appearance of irregular spotting; abdomen pinkish buff, with partly concealed bars of dull black, spotted with white and pinkish

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¹ Colinus leucotis panamensis Dickey and van Rossem, Condor, vol. 32, No. 1, Jan. 20, 1930, p. 73. (Aguadulce, Coclé, Panamá.)

buff; under surface of wings mouse gray, with the under wing coverts tipped and edged lightly with dull white. Bill black; tarsus and feet dusky neutral gray (from dried skin.)

Measurements.—Males (6 specimens), wing 92.6-95.3 (93.7), tail 46.3-52.3 (49.2), culmen from cere 12.7-13.9 (13.2), tarsus 27.9-29.1 (28.5) nm.

Females (3 specimens), wing 92.0-96.1 (94.0), tail 45.7-50.0 (48.4), culmen from cere 12.4-13.4 (12.8), tarsus 27.2-29.4 (28.5) mm.

Type, male, wing 93.3, tail 52.3, culmen from cere 13.0, tarsus 27.9 mm.

Range.—Western Chiriquí on the southern slopes of the Volcán de Chiriquí near Boquete (El Salto, 1,350 meters elevation), and Francés near El Banco; and on the coastal plain below Alanje. Apparently restricted in distribution but fairly common when it is found.

Remarks.—The crested bobwhite of Panamá has been known principally from Veraguas and Coclé, with few specimens in museum collections from Chiriquí. Present information indicates that the population in Chiriquí is isolated as it is known only from the western part of the province, and there are no records of the related race Colinus cristatus panamensis beyond a point about 10 kilometers west of Soná in western Veraguas. From this western limit the subspecies *panamensis* is recorded in open country eastward to the western sector of the Province of Panamá (where I have found it near Nueva Gorgona, and 10 kilometers east of Bejuco), and south on the eastern side of the Azuero Peninsula through Herrera and Los Santos to Pedasí and near the Río Oria below Los Asientos; also in the lower Tonosí valley. It is evident that the additional race here described is one of restricted range, since it is reported to date only from three localities in an area between 50 and 60 kilometers in length. As I have been long familiar with the brown subspecies panamensis of farther east in the Republic the much darker coloration of the form here described was immediately evident on my first sight of it in life. It marks the western extension of the species cristatus.

The new form is named for Mrs. Robert A. Terry, who as Mary E. McLellan Davidson, through her studies in field and laboratory, has added much to our knowledge of the bird life of the Province of Chiriquí.

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III. AN ADDITIONAL RACE OF THE CHESTNUT-BACKED ANTBIRD, *MYRMECIZA EXSUL* SCLATER

The chestnut-backed antbird, found widely through the tropical lowlands of the Republic of Panamá, is a forest-inhabiting species that still remains in small numbers in inhabited sections since a part of its haunt is in swampy woodlands where the land is too wet to be available for cultivation. Here it still finds suitable habitat when the surrounding forest has been destroyed. Three subspecies have been recorded from Panamá. A detailed study of the series now available from the entire isthmus has indicated a fourth that requires description.

MYRMECIZA EXSUL NIGLARUS subsp. nov.

Characters.—Similar to $Myrmeciza \ exsul \ exsul,^2$ but paler above and below; darker than M. e. occidentalis Cherrie,³ especially in the female.

Description .- Type, U.S.N.M. No. 423427, male, from the Rio Chimán about 10 kilometers above Chimán, Province of Panamá, collected February 20, 1950, by A. Wetmore and W. M. Perrygo (original number 15208): Crown, sides of head, throat, and foreneck black, shading to dark neutral gray on hindneck; rest of upper surface Mars brown, shading to russet on rump and upper tail coverts; rectrices fuscous, edged with russet; bend of wing black, edged with white, the alula being fuscous-black with the outer webs edged with white: lesser wing coverts with a shaft line of dusky neutral gray, terminating in a slightly expanded tip of the same color; primaries and secondaries fuscous-black, with the outer webs Mars brown, except the outermost, which has a narrow white outer edge; black of foreneck shading progressively to deep neutral gray on chest, and neutral gray on lower breast; under wing coverts dusky neutral gray, mixed scantily with white; posterior part of sides, flanks, and under tail coverts cinnamon-brown. Bill black ; feet fuscous-brown (from dried skin).

Measurements.—Males (15 specimens), wing 65.0-70.1 (67.1), tail 42.5-49.7 (45.7), culmen from base 20.2-22.3 (21.4), tarsus 27.5-29.7 (28.4) mm.

² Myrmeciza exsul P. L. Sclater, Proc. Zool. Soc. London, vol. 26, 1858 (Jan.-May 1859), p. 540. ("Panama," type locality hereby restricted to near Gatun, Canal Zone.)

⁸ Myrmeciza immaculata occidentalis Cherrie, Auk, vol. 8, No. 2, April 1891, p. 191. (Pozo Azul de Pirris, Pacific slope of Province of San José, Costa Rica.)

Females (10 specimens), wing 62.7-67.0 (64.2), tail 40.2-47.6 (43.3), culmen from base 19.9-22.2 (20.8), tarsus 26.4-29.6 (28.1) mm.

Type, male, wing 66.8, tail 42.5, culmen from base 20.7, tarsus 28.2 mm.

Range.—Eastern Panamá; on the Pacific slope from the western end of the Cerro Azul east through the Province of Panamá to western Darién; on the Caribbean slope from the upper Chagres Valley, above Madden Lake (Quebrada Candelaria on the Río Pequení, Quebrada Peluca on the Río Boquerón), and western Comarca de San Blas (Mandinga) east to the Colombian boundary, and beyond to Acandí in northernmost Chocó, Colombia.

Remarks.—The wing coverts are plain in most individuals of this race, with the white spotting typical of M. e. cassini and M. e. maculifer found only casually in a few. Specimens from the middle Chucunaque Valley, near the mouth of the Rio Tuquesa, are intermediate between the new form and cassini, which ranges through the rest of the lowlands of the Tuira basin.

The name *niglarus* is taken from the Greek $\nu_{V} \lambda a \rho os$, a small fife, in allusion to the whistled calls of these birds, heard constantly as they move through the undergrowth on the forest floor.

IV. THE GEOGRAPHIC RACES OF THE SILVER-THROATED TANAGER, *TANGARA ICTEROCEPHALA* (BONAPARTE)

Specimens now available, particularly those from Costa Rica and the western half of Panamá, permit a better understanding of geographic variation in the tanager Tangara icterocephala (Bonaparte). The species, described from Ecuador in 1851, soon was recorded also from Costa Rica, and from Veraguas and Chiriquí in western Panamá. Cabanis, in 1861, named the Costa Rican bird frantzii, but Ridgway in 1902, with limited series, was not able to distinguish this as a separate race. Hellmayr, in 1936, and others have followed Ridgway's treatment, though with indication by some that there may be two forms. It is only recently that De Schauensee, in 1951, in his account of the birds of Colombia, recognized formally that there are two races. The uncertainty has resulted from the interesting fact that the populations of these birds in Ecuador and in Costa Rica both are bright in color, which obscures their differences. Specimens that I have collected in recent years from the mountains immediately west of the Canal Zone include another subspecies distinct from both of the others.

Females in all three races are duller, more greenish throughout, a

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fact that should be borne in mind in comparing specimens in which the sex is not marked. Juvenile birds differ from adult females in more greenish back, hindneck, and crown, duller-colored rump, less definite streaking on the back, and duller yellow of the under surface.

TANGARA ICTEROCEPHALA ICTEROCEPHALA (Bonaparte)

Calliste icterocephala Bonaparte, Compt. Rend. Acad. Sci. Paris, vol. 31, No. 3 (séance du 20 janv.), 1851, p. 76. (Valley of Punta Playa, near Quito, Ecuador.)

Characters.—Similar to *T. i. frantzii* in bright coloration, but with feathers of crown and nape somewhat greenish basally, so that the yellow in this area appears less intense; partly concealed ring around the base of the hindneck deeper blue; foreneck and throat averaging faintly darker.

Measurements.—Males (12 specimens), wing 71.2-75.0 (72.7), tail 44.2-48.5 (45.8), culmen from base 12.1-12.5 (12.3), tarsus 16.0-17.3 (16.8) mm.

Females (9 specimens), wing 66.6-72.3 (68.7), tail 41.9-46.2 (43.4), culmen from base 12.2-14.2 (12.7), tarsus 16.2-17.5 (17.2) mm.

Range.—Mountains of eastern Darién, Panamá (Cerro Tacarcuna, Cerro Pirre) south in the western Andes through Colombia to southern Ecuador.

TANGARA ICTEROCEPHALA ORESBIA subsp. nov.

Characters.—Decidedly duller yellow throughout than either T. i. frantzii or T. i. icterocephala; partly concealed band on hindneck more greenish blue; foreneck and throat darker; sides and flanks darker, with a greenish-yellow cast: Female, in addition, with edging on back feathers more green, less yellow.

Description.—Type, U.S.N.M. No. 433998, male, south face of Cerro Campana, 850 meters elevation, western sector of the Province of Panamá, Panamá, collected March 7, 1951, by A. Wetmore and W. M. Perrygo (original number 16221). Lores, a very narrow line around eyelids, a small spot behind the eye, a narrow line posterior to the nostrils, and another from the gape across the lower margin of the cheeks to the nape, black; crown and sides of head slightly duller than light cadmium; nape washed with pyrite yellow; band across hindneck bluish gray-green; back feathers distinctly streaked, black centrally, edged broadly with sulphine yellow anteriorly, changing posteriorly to wax yellow; rump between light cadmium and apricot yellow; upper tail coverts oil green, tipped indistinctly with warbler green; wings and tail black; lesser and middle wing coverts edged with lettuce green, with a light tipping of lemon

chrome; greater wing coverts, primaries, and secondaries edged heavily with lettuce green; inner webs of central pair of rectrices cedar green; outer webs of all rectrices edged with lettuce green; point of chin black; feathers of throat, foreneck, and upper margin of chest dark green-blue gray, washed on throat and adjacent ramal area with dark bluish glaucous, on foreneck with light grape green, and on sides of neck with pinkish buff, with the darker basal color showing through in varying amount with change in angle of the light; center of breast and abdomen between light cadmium and lemon chrome; sides between light cadmium and aniline yellow; flanks and under tail coverts aniline yellow; tibia citrine; bend of wing warbler green, stippled lightly with black; under wing coverts light yellowish olive externally, changing to white internally, edged lightly with cream-buff. Bill black; tarsus and toes fuscous (from dried skin).

Measurements.—Males (8 specimens), wing 72.4-77.4 (73.6), tail 45.8-49.8 (47.3), culmen from base 12.0-14.8 (12.9), tarsus 17.5-18.8 (18.3) mm.

Females (9 specimens), wing 68.7-72.4 (71.1), tail 43.5-47.6 (45.6), culmen from base 12.5-14.0 (13.2, average of 8), tarsus 17.8-18.8 (18.3) mm.

Range.—Mountain areas of west central Panamá from Cerro Campana, western Provincia de Panamá, to Coclé (El Valle, Río Guabal).

The name of this form is taken from the Greek $\partial \rho \epsilon \sigma \beta \omega s$, living on mountains.

TANGARA ICTEROCEPHALA FRANTZII (Cabanis)

Callispiza (Chrysothraupis) Frantzii Cabanis, Journ. für Orn., vol. 9, pt. 2, March 1861, p. 87. (Costa Rica.)

Characters.—Similar to T. *i. icterocephala*, but with crown and hindneck more yellow; partly concealed ring on base of hindneck paler, more greenish blue; foreneck and throat paler: definitely brighter yellow above and below than *orcsbia*.

Measurements.—Males (14 specimens from Costa Rica), wing 72.3-78.6 (75.5), tail 44.7-49.8 (47.8), culmen from base 11.5-12.8 (12.3), tarsus 17.2-18.8 (18.0) mm.

Females (12 specimens from Costa Rica), wing 69.5-73.7 (71.7), tail 43.0-46.3 (44.9), culmen from base 11.5-12.6 (11.9), tarsus 17.2-18.5 (17.9) mm.

Range.--Mountains of Costa Rica and western Panamá, east to eastern Veraguas (Chitra).

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V. ADDITIONS TO THE RECORDED LIST OF BIRDS FROM THE REPUBLIC OF PANAMÁ

SALMON'S TIGER-BITTERN. Tiarisoma salmoni SCLATER AND SALVIN: This species, described from Medellin in the Province of Antioquia, northwestern Colombia, with a recorded range east to Venezuela and south through Ecuador and Perú to western Bolivia, ranges also along the Caribbean slope of the Isthmus of Panamá. It was first noticed for this area on February 20, 1952, when I collected an adult male on the Río Uracillo, near the town of that name in the foothills of the Caribbean slope of Coclé. I secured another, an immature bird, near the Peluca Hydrographic Station on the Río Boquerón, Province of Colón, on February 21, 1961, and have a third, shot on the Rio Changena, Bocas del Toro, September 9, 1961. This species differs from the banded tiger-bittern *Tigrisoma lineatum* (Boddaert) structurally in the form of the bill, which is shorter and also heavier. less attenuate at the tip. The adult salmoni is definitely blacker, but the immature differs only in being more extensively white on the lower surface. With the presence of the species known I have found several immature birds in other collections taken earlier in Darién and the eastern Comarca de San Blas, but wrongly identified as Tiarisoma lineatum.

SLENDER-BILLED KITE, Helicolestes hamatus (TEMMINCK):

The slender-billed kite is reported for Colombia on the basis of a record by Salmon from the Río Ité, near Remedios in Antioquia, and is known from scattered localities from eastern Perú to Venezuela (Caicara), Surinam, and the lower Amazon. In Darién, on February 24, 1959, as I landed from a piragua at the mouth of a tiny stream that enters the Río Tuira a short distance above where the Río Paya joins this larger river, I was interested to note shells of an apple snail scattered along the sandy shore, and immediately saw one of these kites perched over a shaded pool inside the forest border. The bird was a female. Later I received another skin from the Gorgas Memorial Laboratory, taken near the same point in the previous year. These are the first reports of this little-known species beyond South America.

GUÁCHARO, Steatornis caripensis HUMBOLDT:

On the night of March 19, 1959, Bernard Feinstein, assistant to Dr. Charles O. Handley, Jr., captured a female of this species in a mist net set for bats at an elevation of 975 meters near the old Tacarcuna village site on Cerro Tacarcuna, Darién. The guácharo

has a wide distribution in northern South America, including Trinidad, but has not been found previously outside those limits.

SHORT-TAILED SWIFT, Chaetura brachyura brachyura (JARDINE):

On September 12, 1960, Dr. Nathan Gale found one lying dead at Corozal, Canal Zone, and brought it to the laboratory of the Malaria Control Service. Here Eustorgio Méndez of the Gorgas Memorial Laboratory secured it and prepared the skin, which is now in the U. S. National Museum. The species has a wide range in South America from the north coast to eastern Perú and central Brazil, with populations in St. Vincent, Trinidad, and Tobago. The Canal Zone record is the first report of it for Panamá.

VI. ADDITIONS TO THE LIST OF BIRDS KNOWN FROM COLOMBIA

Studies of the extensive collections of birds from northern Colombia in the U. S. National Museum in connection with work on the avifauna of Panamá continues to add to the forms known from that republic. Recent additions in this field are as follows:

SAVANNA HAWK, Heterospizias meridionalis rufulus (VIEILLOT):

Examination of a considerable series of these beautiful hawks verifies recognition of two forms on the basis of size. The southern group that breeds from southern Paraguay and Rio Grande do Sul, Brazil, to the provinces of Córdoba and Santa Fé, in northern Argentina, ranges in wing measurement, regardless of sex, from 418 to 452 mm. During the period of southern winter part of these larger birds move northward into the territory of the typical race. The northern population, true *mcridionalis*, resident from Panamá, Colombia, and Venezuela to Bolivia, northern Paraguay, and southcentral Brazil, varies in wing measurement from 379 to 412 mm.

A female that I shot near Maicao in the Guajira Peninsula, northeastern Colombia, on April 14, 1941, with primaries worn at the tip, has the wing still 418 mm. long, and so represents a migrant or wanderer of the southern subspecies. Other breeding specimens taken during the same period in the Guajira in their smaller size are typical *meridionalis*.

GRAY HAWK, Buteo nitidus blakei HELLMAYR AND CONOVER:

A female collected by M. A. Carriker, Jr., at Acandí in northern Chocó, on the western side of the Gulf of Urabá, is typical of this race of adjacent Panamá. It differs from *Buteo nitidus nitidus*, found elsewhere in northern Colombia, in being darker gray above, particularly on the crown and hindneck. Apparently *blakei* does not extend far into Colombia since De Schauensee has reported typical *nitidus* from the Río Juradó on the Pacific slope of northern Chocó, and Carriker secured that subspecies at Nazaret, in western Córdoba, beyond the Río Sinú.

PIGEON HAWK, Falco columbarius bendirei SWANN:

A male taken by Carriker February 26, 1946, at Manancanaca in the higher levels (3,600 meters) of the Sierra Nevada de Santa Marta is a well-marked adult of this migrant from western North America. The race *bendirei* has not been reported previously in South America. In this connection another specimen, a female that W. M. Perrygo and I secured April 15, 1946, at Jaque, Darién, only 40 kilometers from the Colombian boundary, is also of interest as the only record at present for Panamá.

BANDED WOOD-QUAIL, Rhynchortyx cinctus cinctus (SALVIN):

A series taken by Carriker at Socorro and Quebrada Salvajín, Córdoba, near the Río Sinú, at Tarazá, in northern Antioquia, near the Río Cauca, and at Volador in southern Bolívar, represents the typical race, hitherto unknown outside Panamá. *Rhynchortyx cinctus australis* Griscom, described from the Comarca de San Blas, on the Caribbean coast of eastern Panamá, with additional material proves not separable from typical *cinctus*, as the characters on which it was based are those of individual variation.

House WREN, Troglodytes acdon inquietus BAIRD:

Male and female taken January 5 and 7, 1950, by Carriker at Acandi, Chocó, on the western side of the broad entrance of the Gulf of Urabá, are good examples of this race, which is the form found throughout most of Panamá. The occurrence at Acandi is not surprising since this subspecies has been recorded east in the Comarca de San Blas to Puerto Obaldía near the Colombian frontier. Carriker secured another male *inquictus* February 9, 1950, at Necoclí, on the eastern shore of the Gulf of Urabá (called also Gulf of Darién), north of Turbo, and collected two house wrens April 28 in the same year farther south at Villa Artiaga in northwestern Antioquia that are intermediate toward *Troglodytes acdon striolatus*, but nearer to *inquictus*. It appears, therefore, that the form typical of most of Panamá extends around the head of the Gulf.

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